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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,350	08/13/2001	Arnaud Doat	PF 93 PCT US	8605

25666 7590 10/03/2003

THE FIRM OF HUESCHEN AND SAGE
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EXAMINER

CHIN, RANDALL E

ART UNIT PAPER NUMBER

1744

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,350

Applicant(s)

DOAT, ARNAUD

Examiner

Randall Chin

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 20-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.
- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

Art Unit: 1744

- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet

Art Unit: 1744

published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Claim Rejections - 35 USC § 112

3. Claims 20-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of the phrases “so designed” and “so designed as to exhibit” in the majority of claims makes the claims awkward and renders them unclear in the sense that no specific structural features of the toothbrush have been positively claimed. Claims 20 and 37 recite purely functional language (aside from a toothbrush of elongate form and bristles) and include no structure to carry out the claimed function of “stable equilibrium.”

Claims 21-36 and 38, line 1, “The brush” should read –The toothbrush—for consistency. The term “brush” has also been used in the independent claims and should be clarified for consistency.

In claims 23 and 34, the phrase “in each position of stable equilibrium” renders the claim indefinite because claim 20 also encompasses the possibility that there be only one position of stable equilibrium.

Claim 36 is improper and indefinite and must clearly point out structural features of the invention and not refer to the figures.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 20-26, 28 and 30-38 are rejected under 35 U.S.C. 102(a) as being anticipated by Cano '190.

As well as claim 20 is understood, Cano '190 teaches various embodiments of a toothbrush (see different embodiments of Figs. 5, 8, 9, 10 or 12) of elongate form, comprising bristles wherein on a flat horizontal support 50, there is at least one position of stable equilibrium in which the longitudinal direction of the brush is essentially parallel to the support and the bristles lie at a distance from the support and extend towards the support (**if a user orients the bristles in this downwards direction**), wherein the position(s) of stable equilibrium would be the only position(s) of stable equilibrium of the toothbrush on the support.

As for claim 21, the Figs. 8 or 12 embodiments show an arrangement where there is only one position of stable equilibrium.

As for claim 22, there is a distal portion and a proximal portion 46, 100, 108, 112, 142 extending between the bristles and distal portion in the longitudinal direction, and

Art Unit: 1744

an intermediate portion therebetween such that the distal and proximal portions constitute the portions of contact of the toothbrush with the flat support and the intermediate portion lying at a distance from the support.

As for claims 23 and 24, there would be only a single point of contact of the proximal portion with the support in the position of stable equilibrium.

With respect to claim 25, the proximal portion is of a generally flat shape.

As for claim 26, the proximal portion is of generally flat shape and in a plane essentially perpendicular to the longitudinal direction of the toothbrush (Fig. 8).

As for claim 28, Fig. 10 shows an off-center proximal portion with respect to the central longitudinal axis of the toothbrush.

As for claim 30, the proximal portion projects from the handle all the way around the longitudinal axis of the toothbrush.

As for claims 31 and 32, in a broad sense, the proximal portion forms with the handle a "re-entrant" edge on a side of the proximal portion situated toward the bristles or distal portion. Any portion can be considered an "edge."

As for claim 33, the proximal portion has an elastomeric outer face since it is made from rubber or an elastomeric plastic (see col.3, line 65 to col.4, lines 1-19).

With respect to claim 34, the Fig.10 embodiment demonstrates a distal portion shape where there would be two points of contact with the support.

As for claim 35, the bottom surface of the distal portion is flat and is generally parallel to the longitudinal direction of the toothbrush.

As well as claim 37 is understood, Cano '190 teaches in the Fig.10 embodiment a toothbrush of elongate form, comprising bristles wherein when the toothbrush is placed in any initial position on a flat horizontal support, the toothbrush will spontaneously adopt a stable position in which the longitudinal direction of the brush is essentially parallel to the support and the bristles lie at a distance from the support and extend towards the support **(if a user orients the bristles in this downwards direction)**.

As for claim 38, the stable position or orientation will always be the same, whatever the initial position will be in the Fig.10 embodiment.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 20, 22-25, 27, 31, 32 and 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Switzerland 180027.

As well as claim 20 is understood, Switzerland 180027 teaches a toothbrush of elongate form, comprising bristles wherein on a flat horizontal support there is at least one position of stable equilibrium (Fig. 2) in which the longitudinal direction of the brush is essentially parallel to the support and the bristles lie at a distance from the support and extend towards the support wherein the position(s) of stable equilibrium would be the only position(s) of stable equilibrium of the toothbrush on the support. It is noted that Switzerland 180027 also shows another position of "stable equilibrium" with the bristles pointing upwards or away from the support (Fig. 1), however, claim 20 is unclear

Art Unit: 1744

as to whether positions of stable equilibrium actually require the bristles to extend towards the support.

As for claim 22, there is a distal portion a5 and a proximal portion a2 (Fig. 2) extending between the bristles and distal portion in the longitudinal direction, and an intermediate portion therebetween such that the distal and proximal portions constitute the portions of contact of the toothbrush with the flat support and the intermediate portion lying at a distance for the support.

As for claims 23 and 24, there would be only a single point of contact of the proximal portion with the support in the position of stable equilibrium.

With respect to claim 25, the proximal portion a2 is of a "generally" flat shape.

As for claim 27, the proximal portion is of "generally" flat shape in a plane that is essentially inclined with respect to the longitudinal direction of the toothbrush.

As for claims 31 and 32, in a broad sense, the proximal portion forms with the handle a "re-entrant" edge on a side of the proximal portion situated toward the bristles or distal portion. Any portion can be considered an "edge."

With respect to claim 34, there is a distal portion shape where there would be two points of contact with the support.

As for claim 35, the bottom surface of the distal portion is flat and is generally parallel to the longitudinal direction of the toothbrush.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 20-24, 29-32 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lodato '796 in view of Switzerland 180027.

As well as claim 20 understood, the patent to Lodato '796 discloses in Fig. 1 and 2A-2C a toothbrush 10 of elongate form, comprising bristles 16 wherein on a flat horizontal support 20, there is at least one position of stable equilibrium in which the longitudinal direction of the brush is essentially parallel to the support and the bristles lie at a distance from the support wherein the position(s) of stable equilibrium would be the only position(s) of stable equilibrium of the toothbrush on the support. Lodato '796 teaches all of the recited subject matter with the exception of the bristles extending towards the support. Switzerland 180027 discloses a toothbrush arrangement wherein bristles could extend either towards or away from a horizontal support (Figs. 1 and 2)

Art Unit: 1744

when not in use. It would have been obvious to one of ordinary skill in the art to have modified Lodato's bristle arrangement such that the bristles extend towards the support as suggested by Switzerland 180027 for the purposes of preventing the bristles from coming into contact with other objects or just to simply permit improved drainage of water from the bristles after usage.

As for claim 21, there is only one position of stable equilibrium.

As for claim 22, there is a distal portion B and a proximal portion A extending between the bristles and distal portion in the longitudinal direction, and an intermediate portion therebetween such that the distal and proximal portions constitute the portions of contact of the toothbrush with the flat support and the intermediate portion lying at a distance from the support.

As for claims 23 and 24, there would be only a single point of contact of the proximal portion with the support in the position of stable equilibrium.

As for claim 29, the proximal portion A projects from a side of the handle opposite another side of the handle supporting the bristles in the modified Lodato device.

As for claim 30, the proximal portion projects from the handle all the way around the longitudinal axis of the toothbrush.

As for claims 31 and 32, in a broad sense, the proximal portion forms with the handle a "re-entrant" edge on a side of the proximal portion situated toward the bristles or distal portion. Any portion can be considered an "edge."

As well as claim 37 is understood, the modified Lodato device (i.e., in combination with Switzerland 180027) teaches a toothbrush of elongate form, comprising bristles wherein when the toothbrush is placed in any initial position on a flat horizontal support, the toothbrush will spontaneously adopt a stable position in which the longitudinal direction of the brush is essentially parallel to the support and the bristles lie at a distance from the support and extend towards the support.

As for claim 38, the stable position or orientation will always be the same, whatever the initial position will be.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Duey, Sherrod, Burton, Cochrane, Wood, Henderson, Stavely, Green, Gallo, Atkins, Watson and Harrison are pertinent to various brush arrangements with support-like members in an intermediate portion thereof.

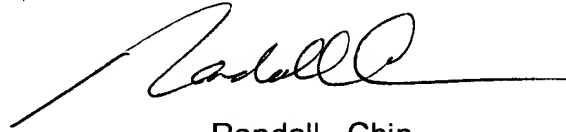
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Chin whose telephone number is (703) 308-1613. The examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on (703) 308-2920. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/913,350
Art Unit: 1744

Page 13

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Randall Chin
Primary Examiner
Art Unit 1744



R. Chin